

Appl. No. 10/687,771
Amdt. dated March 28, 2007
Reply to Office Action of December 29, 2006

Amendments to the Drawings

The attached sheet of drawings includes changes to Fig. 3. The changes are made to respectively add the texts 'AAGC', 'ECHO' and 'NEXT' to the elements 15, 31 and 32. This sheet replaces the original sheet of Fig. 3.

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Attachment: Replacement Sheet 1 page

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Remarks/Arguments

Claims 1-8 remain pending in this application. Claim 8 is newly added without entering any new matters.

- 5 **Claims 1 -4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Agazzi et al. (U.S. Patent Application No. 2003/0007581)**

Claim 1 recites:

- 10 Claim 1 (Currently Amended): A transceiver of a communication system, comprising:
a front-end receiver for generating a first signal with a pre-cursor component and a post-cursor component according to a receiving signal, wherein the front-end receiver further includes an inverse partial response (IPR) filter to compensate an ISI introduced by a partial response filter in a transmitter part of a remote
15 transceiver and an analog-to-digital (A/D) converter to receive ~~[[the]]~~ an output signal of the IPR filter and convert the output signal to the first signal with a digital format;
a noise canceller coupled to the front-end receiver for generating a second signal through eliminating the noise of the first signal;
20 a Feed-Forward Equalizer (FFE) coupled to the noise canceller for generating a third signal through eliminating the pre-cursor component in the second signal according to a transfer function including a plurality of adjustable constants, wherein the adjustable constants includes a main-tap and the value of the main-tap is predetermined; and
25 a decoder coupled to the FFE for decoding the third signal and eliminating the post-cursor component in the third signal.

(Emphasis Added)

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Applicants assert that the amended claim 1 is patentable over AAPA in view of Agazzi et al. because these prior arts nowhere teach or suggest an inverse partial response (IPR) filter providing an output signal to an analog-to-digital converter (ADC) such that the ADC converts the output signal of the IPR filter to a signal with a digital format. Although both of AAPA and Agazzi et al. disclose IPR filters, these IPR filters are set behind an ADC for receiving a digital signal from the ADC rather than set before the ADC for providing an analog signal to the ADC as claimed in claim 1. Besides, there is no teaching or implication disclosed by AAPA or Agazzi et al. showing that it is necessary or preferable to implement an IPR filter providing an output signal to an ADC. Therefore, AAPA in view of Agazzi et al. fails to disclose the claimed invention and thereby claim 1 is in condition of allowance. As claims 2-3 and 8 are dependent upon claim 1, if claim 1 is found to be allowable, so too should the dependent claims.

Claim 4 recites:

Claim 4 (Original): A front-end receiver of the communication system, comprising:
a sample and hold (S/H) circuit for sampling and holding a receiving signal;
an inverse partial response (IPR) filter coupled to the S/H circuit for generating a filtered receiving signal according to the sample-and-hold receiving signal through compensating an ISI introduced by a partial response filter in a transmitter part of a remote transceiver; and
an analog-to-digital converter (ADC) for generating a digital-form signal according to the filtered receiving signal.

(Emphasis Added)

Applicants assert that claim 4 is patentable over AAPA in view of Agazzi et al. because these prior arts at least fail to teach or suggest an inverse partial response (IPR) filter providing an filtered receiving signal to an analog-to-digital converter

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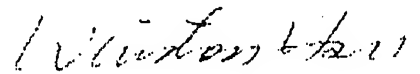
(ADC) such that the ADC generating a digital-form signal according to the filtered receiving signal. Although both of AAPA and Agazzi et al. disclose IPR filters, these IPR filters are receiving a signal from an ADC rather than providing a signal to the ADC as claimed in claim 4. Besides, there is no teaching or implication disclosed by AAPA or Agazzi et al. showing that it is necessary or preferable to implement an IPR filter providing a filtered receiving signal to an ADC. Therefore, AAPA in view of Agazzi et al. fails to disclose the claimed invention and thereby claim 4 is in condition of allowance. As claims 5-7 are dependent upon claim 1, if claim 4 is found to be allowable, so too should the dependent claims.

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Since all of the pending claims 1-8 are placed in condition of allowance, consideration of pending claims is respectfully requested.

Sincerely yours,

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